

## Abstract

The invention relates to a fuel injector (1) having a piezoelectric actuator (2) directly actuating an injection valve member (20), which piezoelectric actuator acts on a booster piston (15), and a face end (18) of the booster piston (15) acts on a hydraulic coupling chamber (19) for actuating the injection valve member (20), and the piezoelectric actuator (2) is received in a hollow chamber (14) in the injector housing (27), which hollow chamber is filled with a fuel volume (5) that is under high pressure, characterized in that the diameter (17) ( $d_2$ ) of a sealing edge (9) in the actuator base region (6) corresponds to the diameter (16) ( $d_1$ ) of the booster piston (15).

(Fig. 1)